

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier. For example, claim 1 is amended to incorporate some of the features of claim 42. Applicant respectfully submits that the disclosure of Applicant's application, such as at page 9, lines 5-9 and page 11, lines 5-19 provides additional support for the amendments to the claims.

After amending the claims as set forth above, claims 1 and 28-49 remain pending in this application.

Objections to the drawings

The drawings are objected to for allegedly not showing every feature recited in the claims. Applicant traverses this ground for objection.

The Office alleges that "the abutment supporting the heat exchanger in a vehicle as recited in Claim 29 and 31 must be shown or the feature(s) canceled from the claim(s)." The Office also states that "[t]he examiner fails to see how two rectangles constitute an abutment on a vehicle frame that supports the fan frame and heat exchanger." Applicant notes, however, that 37 C.F.R. 1.83(a) requires the following:

The drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box). In addition, tables and sequence listings that are included in the specification are, except for applications filed under 35 U.S.C. 371, not permitted to be included in the drawings.

37 C.F.R. 1.83(a); emphasis added.

The abutment is introduced in claim 29 as a feature on which securing tenons of the first heat exchanger are configured to support the first heat exchanger. Claim 31 also recites the abutment as being part of a motor vehicle framework. Accordingly, Figure 6 shows a motor vehicle framework 600 (a conventional feature) as “a labeled representation (e.g., a labeled rectangular box),” as required under 37 C.F.R. 1.83(a), and the abutment is shown as being a part of the motor vehicle framework. Additionally, Figs. 2-3 illustrate, in part, a cooling module which includes a fan frame and heat exchangers, as well as corresponding securing tenons. Thus, Applicant submits that every feature of the invention specified in the claims is shown in the Figures and that additional particulars need not be shown.

In view of the foregoing, Applicant requests reconsideration and withdrawal of the objection to the drawings.

Objections to the Specification

The abstract is objected to, however, Applicant submits herewith an amended abstract that includes the changes suggested by the Office. Applicant, therefore, submits that the objection to the abstract is rendered moot.

Rejections Under 35 U.S.C. § 112

A. § 112, second paragraph

Claim 49 is rejected under 35 U.S.C. § 112, second paragraph, because the term “approximately” recited therein allegedly renders the claim to be indefinite. Applicant respectfully traverses this ground for rejection.

A claim is sufficiently definite to satisfy the statutory requirement of 35 U.S.C. § 112, second paragraph, if one of ordinary skill in the art would understand the bounds of the claim when read in light of the specification. *Miles Labs, Inc. v. Shandon, Inc.*, 997 F.2d 870, 875, (Fed. Cir. 1993). Most importantly here, a claim is definite if it is amenable to construction, however confusing that task may be. *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371 (Fed. Cir. 2001). In other words, if the meaning of the claim is discernible, the claim avoids a rejection on indefiniteness grounds. *Id.*

Applicant submits that the term “approximately” has a basis of reference to at least

one embodiment in the specification. For example, the specification discloses that “[t]he fan . . . has an approximately rectangular framework, which is delimited by four sides 2a, 2b, 2c, 2d” Specification at page 9, lines 5-7. Additionally, Fig. 2 illustrates a fan frame such that one of ordinary skill in the art would be able to ascertain a definite meaning of “approximately rectangular.” Applicant submits, therefore, that the claimed concept is clear and definite and that the entirety of the specification clearly supports this understanding.

B. § 112, fourth paragraph

Claim 49 is rejected under 35 U.S.C. § 112, fourth paragraph, as allegedly failing to limit the subject matter of the claim upon which it depends. Applicant submits that the rejection is moot because claim 49 has been amended as suggested by the Office.

In view of the foregoing, Applicant requests reconsideration and withdrawal of the rejections under § 112.

Rejections Under 35 U.S.C. § 103

A. Claims 1, 28-41 and 47-49

Claims 1, 28-41 and 47-49 are rejected under 35 U.S.C. § 103(a) as allegedly being anticipated by FR2778975 to Mahe (hereafter “Mahe”) in view of U.S. Patent No. 6,158,500, (hereafter “Heine”). This rejection is respectfully traversed.

Mahe discloses a heat exchanger module which shows a fan frame attached to a manifold using a cover 62. The cover 62 is formed over the heat exchanger and bolted into the heat exchanger and held at points 54/58 and 56/60. However, Mahe does not disclose a first heat exchanger comprising a tube/rib block, a first header and a second header, and a fan frame comprising a framework with a first set of projections, a second set of projections, and at least one rib, wherein the first header has holders and the second header has snap hooks, wherein the holders and the first set of projections are configured to be in operative contact with one another at securing points, wherein the at least one rib is configured to stiffen the framework, and wherein each one of the snap hooks passes through a corresponding one of the second set of the projections and engages with the corresponding one of the second set of projections, as recited in claim 1. In particular, Mahe’s frame is secured to the heat

exchanger, in part, by features 54 and 56 which appear to be received at features 58 and 60, respectively. Mahe's frame is also secured to the heat exchanger by cover 62 and retaining edge 66 which appear to be received at the top of heat exchanger 10, and screws 74, 76 which are received in the heat exchanger at top corners of heat exchanger 10. However, none of the features 54, 56, 58, 60, 62, 66, 74 and 76 can be equated in part or in whole to holders on a first header and snap hooks on a second header, or even individually as a snap hook that passes through a projection and engages with the projection, as recited in claim 1. Accordingly, Mahe fails to disclose the claimed the snap hook of claim 1.

Heine, like Mahe, fails to disclose, teach or suggest the claimed configuration for the holders and snap hooks and therefore fails to cure the deficiencies of Mahe. While the instant claims recite that the first header has holders and the second header has snap hooks, Heine merely discloses that each of coolant tank 3 and 4 includes one of support hooks 5 and 6, respectively, and one of upper fastening points 7 and 8, respectively. This is a vastly different configuration than that which is recited in claim 1. Thus, claim 1 is allowable over Mahe and Heine.

Additionally, on page 5 of the Office Action, the Office states that "it would have been obvious ... to include a snap hook fastener instead of [Mahe's] fastener since they are art recognize equivalents for the purpose of securing two objects together." Applicant respectfully disagrees because there is no reason to include a snap hook fastener in Mahe and even if there was a reason for doing so, the Office's proposed configuration results in an impermissible change in mode of operation of securing Mahe's fan frame to the heat exchanger. Additionally, Applicant submits that Heine's hook and Mahe's screws are not equivalent.

As noted in MPEP 2143.01(VI), "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)."

Applicant submits that attachment of Mahe's fan frame 14 onto the heat exchanger 10 requires cover 62, which is formed over the top of heat exchanger, and held in place by retaining edge 66 and screws 74 and 76, which are each threaded into the heat exchanger. Accordingly, Mahe's fan frame must be lowered such that both of features 54 and 56 are received and held by features 58 and 60 at about the same time and in such a manner that lip 66 of cover 62 is permitted to fit over and around a top of the heat exchanger as shown in Mahe's Figs 1-2. This is evidenced by the tight clearance shown in Fig. 3. Heine's configuration, on the other hand, requires that a fan frame be lowered on an angle such that it rests on support hooks 5 and 6, but also provide clearance around upper fastening points 7 and 8, and then finally pushing back the fan frame to secure the hooks. Accordingly, it would be impossible to lower Mahe's fan frame such that both of its features 54 and 56 would be received by Heine's hooks 5 and 6 while at the same time providing for Mahe's lip 66 of cover 62 to fit over and around the top of Heine's cooler without changing the mode of operation of Mahe's fastening configuration.

Furthermore, portions of Mahe's "fastener," that is, screws 74 and 76 are not included as part of the fan frame, heat exchanger or manifold boxes 18 and 20, because they are completely separate components. The screws also thread into a top part of manifold boxes 18 and 20. In contrast, Heine's upper fastening points 7 and 8 (or hooks 17) are rigidly attached to the coolant tanks 3 and 4 (i.e., they are not separable from the coolant tanks), and also protrude from a side of the coolant tanks. See Heine at Fig. 1, Fig. 8, Fig. 10 and col. 5, lines 17-44. Accordingly, it would not have been obvious to substitute a Heine's hook instead of [Mahe's] fastener because they are not equivalent.

Thus, claim 1 is allowable over Mahe and Heine. And if an independent claim is nonobvious under § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988). See MPEP 2143.03. Thus, Applicant submits that claims 28-41 and 47-49, each of which ultimately depends from independent claim 1 are also non-obvious at least by virtue of their dependency from claim 1.

For at least these reasons, favorable consideration of the rejection is respectfully requested.

B. Claims 42-46

Claims 42-46 are rejected under 35 U.S.C. § 103(a) as allegedly being anticipated by Mahe in view of Heine in further view of FR28008870 (hereafter “Gassman”). This rejection is respectfully traversed.

Claim 1 is allowable over Mahe, Heine and Gassmann because Gassmann fails to cure the deficiencies Mahe in view of Heine. Gassmann, like Mahe, fails to disclose the claimed the snap hook of claim 1. Gassmann merely discloses clip fixings 31 on the fan frame matched with points 14 of collection chamber 6. While the instant claims recite that the first header has holders and the second header has snap hooks and that a snap hook passes through a corresponding one of the second set of projections and engages with the projection, each of Gassmann’s points 14 of the collection chamber 6 are not comparable to a snap hook, and points 14 do not pass through the clip fixings 31. Accordingly Gassmann does not disclose, teach or suggest all of the features of claim 1. Thus, claim 1 is allowable over Mahe and Gassmann.

Additionally, on pages 9-10 of the Office Action, the Office states that “it would have been obvious...to modify the fasteners of [Mahe] to be snap hooks and insertion orifices as they are art recognized equivalents of securing two objects together. In addition, it would have been obvious to use the fasteners of [Gassmann] as it allows for easy installation of the fan frame next to the heat exchanger.” Applicant respectfully disagrees because, as discussed above, Mahe and Heine are incompatible and the Office’s proposed configuration results in an impermissible change in mode of operation of securing Mahe’s fan frame to the heat exchanger.

As noted in MPEP 2143.01(VI), “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).”

Applicant submits that attachment of Mahe’s fan frame 14 onto the heat exchanger 10, as discussed above, requires a vertical installation, with no hinge feature to allow the fan

frame to be swung around the hinges. Heine's configuration, as discussed above, requires that a fan frame be lowered on an angle such that it rests on support hooks 5 and 6, but also provide clearance around upper fastening points 7 and 8, and then finally pushing back the fan frame to secure the hooks. Gassmans's configuration, on the other hand, requires horizontal installation that includes a hinge feature, allowing the fan frame to be swung around the hinges. In fact, Gassman states that "[t]he guide plate is attached at one end with tongues (10) that fit in loops (11) fixed to the body to form hinges (27), and closed into place to be held by clip fixings (31) at the other end." (English Abstract of Gassman.)

Consequently, there is no reason to combine Gassman with Mahe, and even if such a combination were made, the result would change the principle of operation of Mahe's configuration.

Because none of the secondary references resolve the fundamental deficiencies in Mahe, and because there is no reason to combine the references, Applicant submits that the combination of these references does not properly render independent claim 1 to be obvious over Mahe, Heine and Gassmann. And if an independent claim is nonobvious under § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988). See MPEP 2143.03. Thus, Applicant submits that claims 42-46, each of which ultimately depends from independent claim 1 are also non-obvious at least by virtue of their dependency from claim 1.

Thus, the claims are allowable over Mahe, Heine and Gassmann.

For at least these reasons, favorable consideration of the rejection is respectfully requested.

CONCLUSION

Applicants submit that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date

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FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 295-618
Facsimile: (202) 672-5399

By

Matthew J. Kremer (Reg. No. 58,671)
MATTHEW J. KREMER

for Matthew A. Smith
Attorney for Applicant
Registration No. 49,003